

by some oversight used to express the epipleural fold, which, although narrow, is well marked and extends along the whole length of the epipleura; the latter is nearly vertical.

## EXPLANATION OF PLATE X.

- Fig. 1. *Melytra ovata*: *a*, mentum, lower lip, &c.; *b*, maxilla &c.  
 Fig. 2. *Blepegenes aruspex*: *a*, mentum &c.; *b*, maxilla &c.; *c*, head.  
 Fig. 3. *Hymæa succinifera*: *a*, mentum &c.; *b*, maxilla &c.  
 Fig. 4. *Seirotrana crenicollis*.  
 Fig. 5. *Coripera ocellata*.  
 Fig. 6. *Byallius reticulatus*: *a*, mentum &c.; *b*, maxilla &c.  
 Fig. 7. *Ganyme Howittii*: *a*, antennæ.  
 Fig. 8. *Orcopagia monstrosa*: *a*, mentum &c.; *b*, maxilla &c.; *c*, antenna;  
*d*, head; *e*, fore tibia. N.B. The figure is much too broad in proportion.  
 Fig. 9. Coxa and part of the femur of a *Pimelia*: *a*, the trochantin;  
*b*, the trochanter. The left side is supposed to be towards the spectator.

[To be continued.]

## XI.—Contributions to the Study of the Entomostraca.

By GEORGE STEWARDSON BRADY, C.M.Z.S. &c.

No. IV. *Ostracoda from the River Scheldt and the Grecian Archipelago.*

[Plates VII. & VIII.]

*Lists of Species.**River Scheldt, near Antwerp.*

*Cypris gibba*, Ramdohr.  
*Cypridopsis obesa*, nov. sp.  
*Candona candida* (Müller).  
 — *compressa* (Koch).  
 — *lactea*, Baird.  
*Cythere viridis*, Müller.  
 — *pellucida*, Baird.  
 — *castanea*, Sars.  
 — *porcellanea*, nov. sp.  
 — *villosa* (Sars).  
 — *fuscata*, nov. sp.  
 — *pulchella*, Brady.  
*Cytheridea littoralis*, Brady.  
 — (?) *cornea*, nov. sp.  
*Loxoconcha elliptica*, Brady.  
*Xestoleberis aurantia* (Baird).  
*Cytherura similis*, Sars.  
 — *flavescens*, nov. sp.  
 — *acuticostata*, Sars.  
 — *cellulosa* (Norman).  
*Cytherideis subulata*, Brady.  
*Paradoxostoma variabile* (Baird).

*Besika Bay, 14 fathoms.*

*Pontocypris* (?) *angusta*, Brady.  
 — *intermedia*, Brady.  
*Cythere tenera*, Brady.  
 — *crispata*, Brady.  
 — *affinis*, nov. sp.  
 — *senticosa* (Baird).  
 — *plicatula*, Reuss.  
 — *tarentina*, Baird.  
 — *antiquata* (Baird).  
 — *Jonesii* (Baird) and var.  
*ceratoptera*.  
*Cytheridea Mülleri*, Bosquet.  
 — *littoralis*, Brady.  
 \* *Ilyobates judæa*, Brady.  
*Loxoconcha glabra*, Brady.  
 — *tumida*, nov. sp.  
 — *angustata*, nov. sp.  
*Xestoleberis margaritea*, Brady.  
 \* — *intermedia*, Brady.  
*Cytherideis teres*, nov. sp.  
*Paradoxostoma ensiforme*, Brady.  
*Cytherella punctata*, Brady.

<p><i>Dardanelles</i>, 17 fathoms.  <i>Cythere tenera</i>, <i>Brady</i>.  — <i>crispata</i>, <i>Brady</i>.  * — (?) <i>Stimpsoni</i>, <i>Brady</i>.  — <i>tarentina</i>, <i>Baird</i>.  — <i>plicatula</i>, <i>Reuss</i>.  — <i>Jonesii</i>, var. <i>ceratoptera</i>, <i>Bosq.</i>  <i>Cytheridea Müller</i>, <i>Bosq.</i>  <i>Xestoleberis margaritea</i>, <i>Brady</i>.  <i>Cytheropteron acutum</i>, <i>nov. sp.</i>  <i>Cytherella punctata</i>, <i>Brady</i>.</p>	<p>* <i>Cythere Berchoni</i>, <i>Brady</i>.  * — <i>Stimpsoni</i>, <i>Brady</i>.  — <i>plicatula</i>, <i>Reuss</i>.  — <i>antiquata</i> (<i>Baird</i>).  <i>Cytheridea littoralis</i>, <i>Brady</i>.  * — <i>castanea</i>, <i>Brady</i>.  <i>Loxoconcha tamarindus</i> ? (<i>Jones</i>).  — <i>tumida</i>, <i>nov. sp.</i>  <i>Xestoleberis margaritea</i>, <i>Brady</i>.  <i>Cytherura obtusata</i>, <i>Brady</i>.  * <i>Cytheropteron stellatum</i>, <i>Brady</i>.  <i>Paradoxostoma ensiforme</i>, <i>Brady</i>.  <i>Cytherella punctata</i>, <i>Brady</i>.</p>
<p>—————  <i>Piræus</i>.  <i>Pontocypris intermedia</i>, <i>Brady</i>.  — <i>obtusata</i>, <i>nov. sp.</i></p>	<p>—————  <i>Crete</i>, mud.  <i>Polycoppe</i>, <i>sp.</i></p>

THE gathering from the river Scheldt (for which I am indebted to Mr. E. C. Davison) exhibits a curious mixture of marine and freshwater species, the former, however, being chiefly such as exhibit a decided preference for littoral, estuarine, or sub-brackish habitats, e.g. *Cythere castanea*, *Cytheridea littoralis*, *Loxoconcha elliptica*, *Xestoleberis aurantia*, and *Cytherideis subulata*. The uniformly good preservation of the shells would, nevertheless, lead to the supposition that all the species were really living in company at the place where they were found. Two of the new species included in this list (*Cypripopsis obesa* and *Cytheridea cornea*) will be described and figured from British specimens in a future communication. It may be noted that the specimens here referred to *Cytherura similis*, though agreeing perfectly in shape with an outline drawing obligingly sent to me by Herr G. O. Sars, differ strikingly from his description in their surface-ornament, being distinctly punctate, and bearing also several small, distant, circular papillæ. The drawing of *C. similis* given in my 'Monograph of the Recent British Ostracoda' is faulty, and has the posterior beak too much produced.

The lists of species from the Mediterranean exhibit an intermixture of British species similar to what has been noticed on a previous occasion. Those marked with an asterisk have been described in a French periodical, 'Les Fonds de la Mer'; the remainder of those to which my name is affixed will be found in the 'Transactions of the Zoological Society,' vol. v., in the 'Monograph of the British Ostracoda,' or in previous papers of the present series. The specimens which I have doubtfully referred to *Loxoconcha tamarindus* are rather larger than that species as it usually occurs on the British coast, measuring about one-fortieth of an inch in length: they are also somewhat more ventricose, and slightly different in out-

line; but the differences seem to be too slight to warrant separation as a distinct species. One of these specimens is figured in Pl. VIII. figs. 9, 10.

*Pontocypris obtusata*, nov. sp. (Pl. VIII. figs. 7, 8.)

Carapace, as seen from the side, elongate, reniform, highest in the middle; greatest height considerably less than half the length; extremities rounded: superior margin well arched; inferior sinuated in the middle. Seen from above, the outline is compressed, ovate; greatest width in the middle and scarcely equal to one-third of the length, pointed in front, narrowly rounded behind. Shell-surface smooth. Colour whitish. Length  $\frac{1}{40}$  inch.

*Cythere porcellanea*, nov. sp. (Pl. VII. figs. 1-4.)

Valves, as seen from the side, subclavate, higher in front than behind; greatest height in front of the middle, and equal to half the length; anterior extremity broadly rounded, posterior obliquely rounded or subtruncate: superior margin boldly arched in front of the middle, thence sloping backwards with a slight concave curve, and ending abruptly in an obtuse angle; inferior gently sinuated. Outline, as seen from above, ovate, equally pointed at the extremities, widest in the middle; width much less than the height. Shell-surface smooth, each valve bearing an elongated mamilliform protuberance behind the middle of the ventral surface. Colour yellowish white. Length  $\frac{1}{55}$  inch.

One specimen only of this species was found. Though approaching in shape *C. castanea*, it is very different in general appearance; the smooth unsculptured shell and lateral protuberances are perhaps its best diagnostic marks.

*Cythere fuscata*, nov. sp. (Pl. VII. figs. 5-8.)

Carapace, as seen from the side, oblong, subreniform, rather higher in front than behind; greatest height equal to half the length; anterior extremity rounded, posterior slightly emarginate above the middle: superior margin almost straight, inferior sinuated in the middle. Seen from above, the outline is oblong ovate, acutely pointed in front, subtruncate behind; greatest width less than the height, situated behind the middle. Surface of the valves closely punctate. Colour yellowish brown. Length  $\frac{1}{40}$  inch.

*Cythere affinis*, nov. sp. (Pl. VII. figs. 13, 14.)

Carapace compressed, oblong. Seen from the side, subreniform, nearly equal in height throughout; greatest height less than

half the length; anterior extremity evenly, posterior obliquely rounded: superior margin slightly concave in the middle, and more distinctly emarginate close to the posterior extremity; inferior rather deeply sinuated in the middle. Outline, as seen from above, oblong, irregularly ovate, widest behind the middle, obtusely pointed in front, broadly mucronate behind; greatest width less than the height. Surface of the valves irregularly pitted, marked with several peripheral concentric rugæ and an indistinct transverse central sulcus. Colour yellowish brown. Length  $\frac{1}{3.5}$  inch.

*Cythere Stimpsoni*, Brady. (Pl. VII. figs. 9–12.)

*Cythere Stimpsoni*, Brady, Les Fonds de la Mer.

This species exhibits a near approach to *C. fistulosa*, Baird, and seems to be separated from that species chiefly by its less abrupt and prominent ribbing, the more delicate reticulation of the surface, and the less elongated form of the carapace. *C. runcinata*, Baird, seems to me very likely to be the male of *C. fistulosa*.

*Loxoconcha tumida*, nov. sp. (Pl. VIII. figs. 11, 12.)

Carapace of the female, as seen from the side, subrhomboidal, highest in the middle; greatest height equal to more than two-thirds of the length; extremities obliquely rounded, the posterior emarginate at its upper extremity: superior margin arched, highest in the middle; inferior slightly convex. Seen from above, the outline is lozenge-shaped, widest at the middle and acuminate at each extremity; width equalling rather more than half the length. Shell-surface closely and rather coarsely punctate. Length  $\frac{1}{3.5}$  inch.

This is closely allied to *L. affinis*, but much more tumid.

*Loxoconcha angustata*, nov. sp. (Pl. VIII. figs. 16, 17.)

Carapace, as seen from the side, elongated, subrhomboidal, nearly equal in height throughout; height equal to half the length; extremities obliquely rounded, the posterior emarginate at its upper angle: superior margin quite straight, inferior slightly sinuated. Outline, as seen from above, ovate, widest behind the middle; extremities sharply mucronate, greatest width about equal to the height. Shell-surface marked with closely set, deep, angular pittings. Substance of the shell rather thin and horny. Length  $\frac{1}{5.5}$  inch.

*Cytherura flavescens*, nov. sp. (Pl. VIII. figs. 13-15.)

Carapace, seen from the side, oblong, constricted in the middle; height fully equal to half the length; anterior extremity rounded, posterior produced in the middle into a short obtuse beak: superior and inferior margins both distinctly sinuated in the middle. Outline, as seen from above, ovate, mucronate behind, pointed in front; greatest width situate in the middle, much less than the height. Surface of the valves marked with delicate raised reticulations, the longitudinal markings being most conspicuous. Colour yellowish. Length  $\frac{1}{70}$  inch.

I have specimens of this species also from the estuary of the Thames, and perhaps from other British localities; but the genus to which it belongs is so perplexing, the species being numerous and separated by such apparently variable characters, that I had not hitherto ventured to describe it under a distinct specific name. These foreign specimens, however, appear to place the species on a more certain foundation.

*Cytheropteron acutum*, nov. sp. (Pl. VIII. figs. 1-4.)

Carapace, seen from the side, oblong, subrhomboidal; greatest height in the middle, equal to half the length: anterior extremity rounded; posterior obliquely truncate, produced above the middle into an obtuse beak: superior margin arched, inferior sinuated in front of the middle. Seen from above, the outline is diamond-shaped, widest behind the middle; extremities acuminate, width greater than height. Surface of the shell smooth, marked with small, distant, circular papillæ; lateral ala prominent. Length  $\frac{1}{60}$  inch.

*Cytherideis teres*, nov. sp. (Pl. VIII. figs. 5, 6.)

Carapace, as seen from the side, elongated, oat-shaped, higher behind than in front; greatest height in the middle, and equal to one-third of the length; anterior extremity rather attenuated, posterior rounded: superior margin evenly arched, inferior almost straight. Seen from above, compressed ovate, acutely pointed in front, more obtusely behind, widest in the middle; width equal to the height. Surface of the shell smooth. Colour yellowish white. Length  $\frac{1}{45}$  inch.

*Polycope*, sp. (Plate VII. figs. 15, 16.)

A few separated valves of a species of *Polycope*, not much different in appearance from *P. orbicularis*, Sars, but smooth

and wholly destitute of sculpture, were found in soundings taken by Capt. Spratt off the coast of Crete. Diam.  $\frac{1}{50}$  inch.

## EXPLANATION OF THE PLATES.

## PLATE VII.

- |   |                 |
|---|-----------------|
| Fig. 1. <i>Cythere porcellanea</i> , seen from left side.   | } $\times 40$ . |
| Fig. 2. The same, seen from above.                          |                 |
| Fig. 3. The same, from below.                               |                 |
| Fig. 4. The same, from the front.                           |                 |
| Fig. 5. <i>Cythere fuscata</i> , seen from the left side.   |                 |
| Fig. 6. The same, seen from above.                          |                 |
| Fig. 7. The same, from below.                               |                 |
| Fig. 8. The same, from the front.                           |                 |
| Fig. 9. <i>Cythere Stimpsoni</i> , seen from the left side. |                 |
| Fig. 10. The same, from above.                              |                 |
| Fig. 11. The same, from below.                              |                 |
| Fig. 12. The same, from the front.                          |                 |
| Fig. 13. <i>Cythere affinis</i> , seen from the left side.  |                 |
| Fig. 14. The same, seen from above.                         |                 |
| Fig. 15. <i>Polycope</i> , sp., seen from the side.         |                 |
| Fig. 16. The same, end view.                                |                 |

## PLATE VIII.

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|--|-----------------|
| Fig. 1. <i>Cytheropteron acutum</i> , seen from the left side.     | } $\times 40$ . |
| Fig. 2. The same, seen from above.                                 |                 |
| Fig. 3. The same, seen from below.                                 |                 |
| Fig. 4. The same, seen from the front.                             |                 |
| Fig. 5. <i>Cytherideis teres</i> , seen from the left side.        |                 |
| Fig. 6. The same, seen from below.                                 |                 |
| Fig. 7. <i>Pontocypris obtusata</i> , seen from the left side.     |                 |
| Fig. 8. The same, seen from above.                                 |                 |
| Fig. 9. <i>Loxoconcha tamarindus</i> (?), seen from the left side. |                 |
| Fig. 10. The same, seen from above.                                |                 |
| Fig. 11. <i>Loxoconcha tumida</i> , seen from the left side.       |                 |
| Fig. 12. The same, seen from above.                                |                 |
| Fig. 13. <i>Cytherura flavescens</i> , seen from the left side.    |                 |
| Fig. 14. The same, from above.                                     |                 |
| Fig. 15. The same, seen from the front.                            | } $\times 40$ . |
| Fig. 16. <i>Loxoconcha angustata</i> , seen from the left side.    |                 |
| Fig. 17. The same, seen from above.                                |                 |

## XII.—Reply to Dr. E. P. Wright's Observations on Dredging.

To the Editors of the *Annals and Magazine of Natural History*.

GENTLEMEN,

The remarks of Dr. Wright, in this month's Number of the 'Annals,' on what he is pleased to term the "accidental" discovery by me of starfishes normally living in the deeper abysses of the ocean, are so far incorrect that I must beg to be permitted to reply to them.